**2. Implement programs for visualizing time series data**

**AIM:**

To implement programs for visualizing time series data

**PROCEDURE:**

1. **Import the necessary libraries:**

from google.colab import files

uploaded = files.upload()

import pandas as pd

1. **Load the dataset:**

import io

df = pd.read\_csv(io.BytesIO(uploaded["autism.csv"]))

print(df)

1. **Implementing program for visualising time series data using scatter plot.**

import matplotlib.pyplot as plt

import seaborn as sns

plt.figure(figsize=(10, 6))

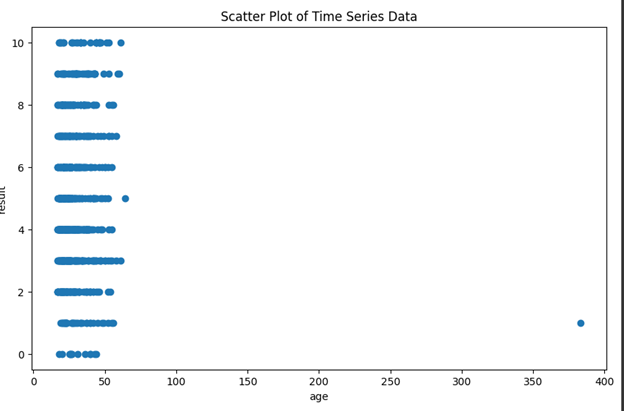
plt.scatter(df['age'], df['result'])

plt.xlabel('age')

plt.ylabel('result')

plt.title('Scatter Plot of Time Series Data')

plt.show()

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**4. Implementing program for visualising time series data using area plot.**

plt.figure(figsize=(10, 6))

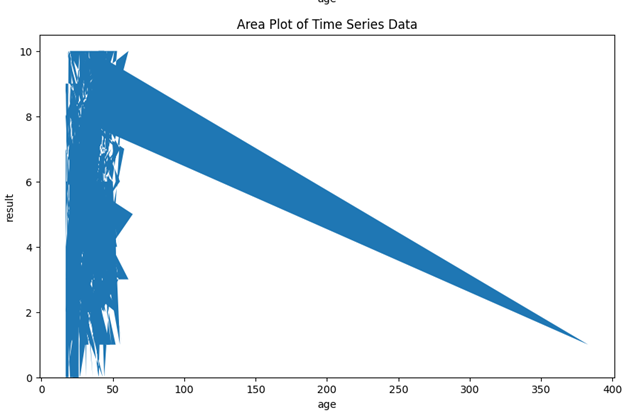
plt.stackplot(df['age'], df['result'])

plt.xlabel('age')

plt.ylabel('result')

plt.title('Area Plot of Time Series Data')

plt.show()

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**5. Implementing program for visualising time series data using line plot.**

plt.figure(figsize=(10, 6))

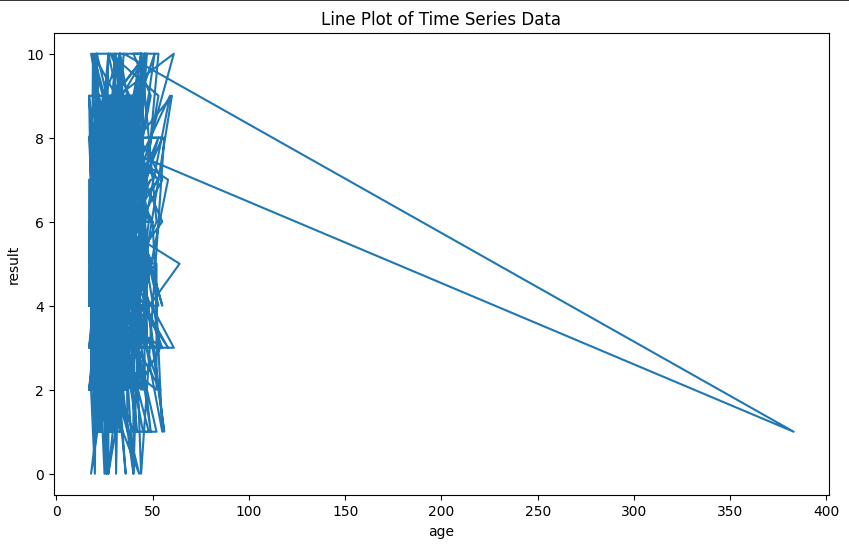
plt.plot(df['age'], df['result'])

plt.xlabel('age')

plt.ylabel('result')

plt.title('Line Plot of Time Series Data')

plt.show()



**6. Implementing program for visualising time series data using box plot.**

plt.figure(figsize=(10,6))

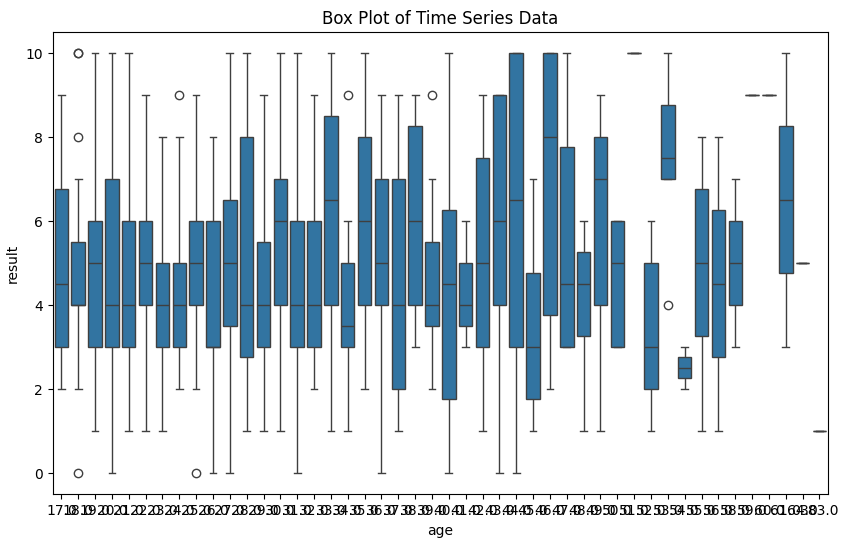
sns.boxplot(x=df['age'], y=df['result'])

plt.xlabel('age')

plt.ylabel('result')

plt.title('Box Plot of Time Series Data')

plt.show()

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**7. Implementing program for visualising time series data using bar plot.**

plt.figure(figsize=(10, 6))

*# Replace 'A1' and 'A2' with the correct column names from your DataFrame*

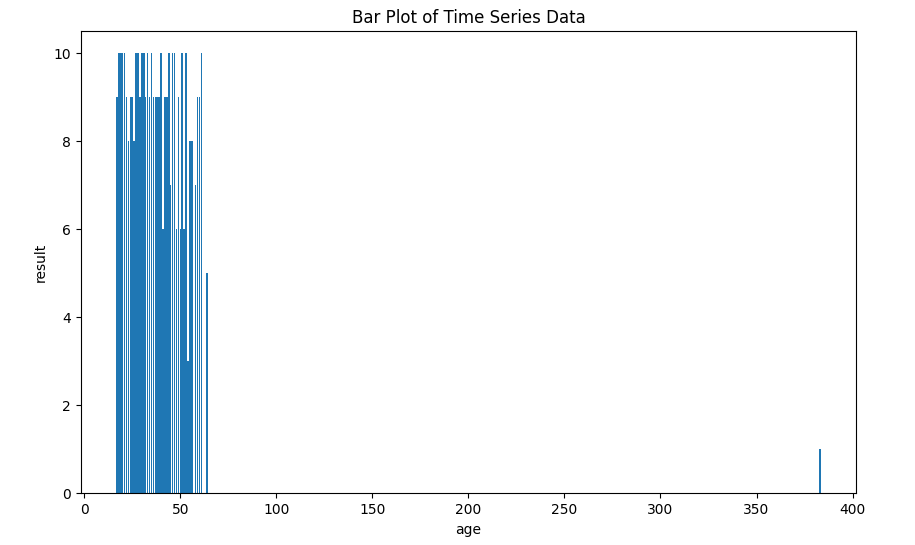
plt.bar(df['age'], df['result'])

plt.xlabel('age')

plt.ylabel('result')

plt.title('Bar Plot of Time Series Data')

plt.show()

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**RESULT:**

The programs for implementing for visualizing time series data is verified successfully.